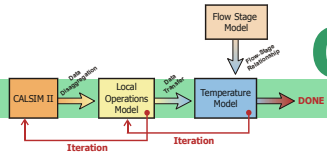


Operations Modeling – Sensitivity Analysis Series



Sensitivity Analysis allows a special interest to explore ranges of potential system responses to controlled changes in operating conditions derived from the Benchmark Studies or a separate source of information

Scenario Number: 17A

Scenario Objective:

Investigate the downstream limits of temperature control in the high-flow section of Feather River from Thermalito Afterbay outlet to confluence with the Sacramento River by operation of the Oroville Facilities in April through June (spring months).

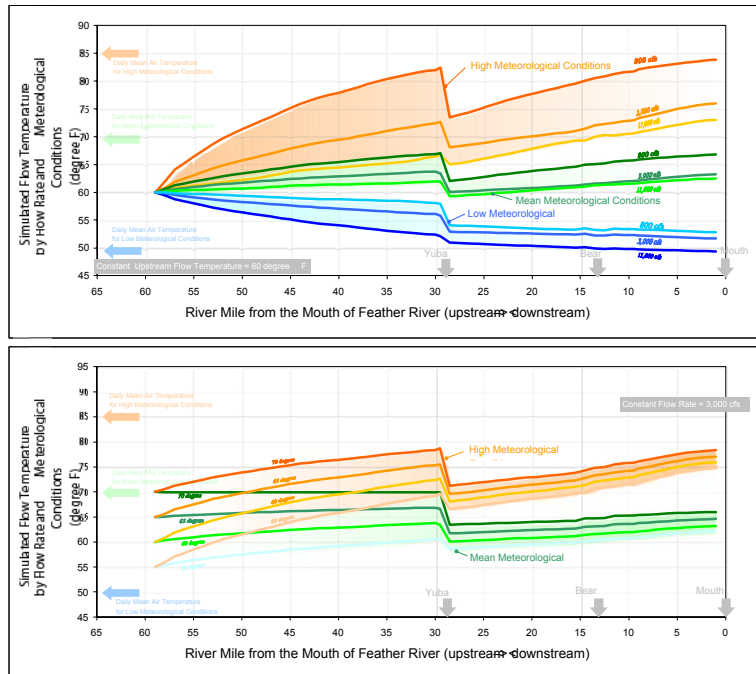
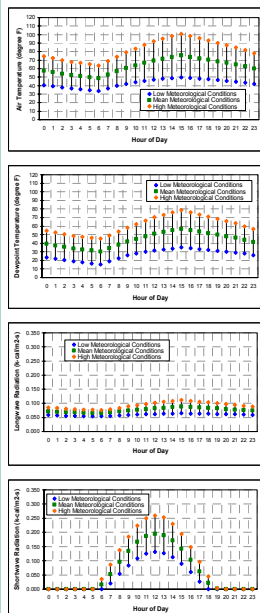
Model Use:

- WQRRS
- Model was modified to include the high-flow section of the Feather River only

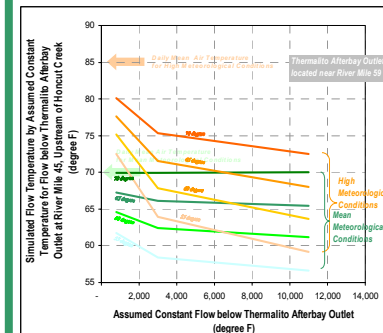
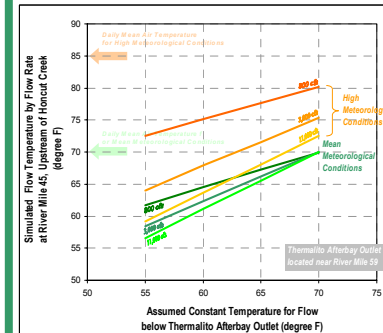
Approach

- The diurnal variations of shortwave radiation, longwave radiation and dew point temperatures were developed based on April through June of 14-year records.
- High, and low meteorological conditions represent the upper and lower bounds of a range with about 95 percent of occurrence.
- Headwater flows and temperatures were selected to bracket typical historical conditions.
- Tributary flows were derived from historic data. Their temperatures are based on correlations with assumed ambient air temperatures.

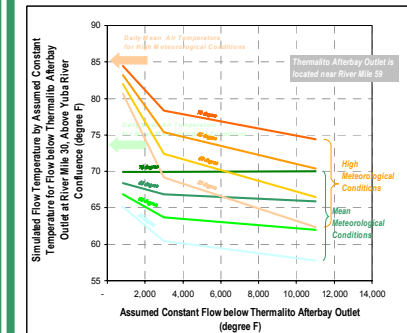
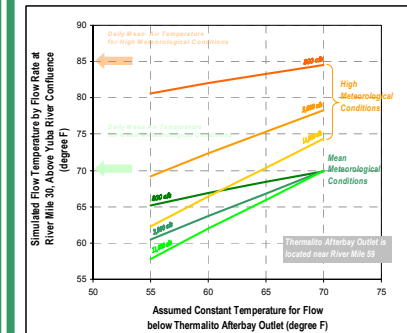
Model Inputs



River Mile 45 Upstream of Honcut Creek



River Mile 30 Upstream of Yuba River



***Operations of Oroville Facilities to facilitate assumed flow and temperature were not evaluated. ***

Findings:

- Among the factors evaluated in this scenario, meteorological conditions have the largest influence on effects of temperature control provided by the Oroville Facilities.
- Findings for spring months are consistent with those for summer months in Scenario 17.